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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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Ryoichi Ohkura

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EXAMINER

PERRIN, JOSEPH L

ART UNIT


PAPER NUMBER

1746

DATE MAILED: 01/14/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No. 09/871,250	Applicant(s) OHKURA ET AL.	
Examiner Joseph L. Perrin, Ph.D.	Art Unit 1746	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 September 2003 (entered via RCE).
- 2a) ☒ This action is FINAL. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,3-6,8,9 and 11-14 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 11-14 is/are allowed.
- 6) ☒ Claim(s) 1,3-6 and 8 is/are rejected.
- 7) ☒ Claim(s) 9 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) ☐ All b) ☐ Some * c) ☐ None of:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
 * See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
 a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 30 September 2003 has been entered.

2. All claims are drawn to the same invention claimed in the application prior to the entry of the submission under 37 CFR 1.114 and could have been finally rejected on the grounds and art of record in the next Office action if they had been entered in the application prior to entry under 37 CFR 1.114. Accordingly, **THIS ACTION IS MADE FINAL** even though it is a first action after the filing of a request for continued examination and the submission under 37 CFR 1.114. See MPEP § 706.07(b).

Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

3. A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

4. It is noted that claim 1 has been amended to further incorporate claim 2, however the rejection could have been finally rejected on the grounds and art of record in the next Office action since both claims 1 & 2 were originally rejected under § 102 in view of Ebara.

Response to Arguments

5. In view of applicant's amendment filed 30 September 2003, the status of the application is as follows:

Rejections under 35 U.S.C. §112, first and second paragraphs

6. The rejection of claims 1, 3-6 & 8-9 are withdrawn in view of Applicant's amendment to independent claim 1 removing the claims language resulting in the §112 rejections. However, as previously stated in the Advisory Action of 17 October 2003, the removal of the language has resulted in the reinstatement of the previous §102 & §103 rejections, and subsequently the removal of indicated allowable subject matter of claim 1 cited in the Final Action of 18 July 2003.

7. Applicant's arguments filed 30 September 2003 have been fully considered but they are not persuasive.

Applicant cites the claimed invention of claim 1, and argues that "[s]uch an arrangement is not taught or suggested by the prior art." This is not persuasive for reasons of record. Moreover, applicant has not provided evidence to overcome the original §102 rejections over Ebara.

Accordingly, Applicant's arguments fail to comply with 37 CFR 1.111(b) because they amount to a general allegation that the claims define a patentable invention without specifically pointing out how the language of the claims patentably distinguishes them from the references. Accordingly, the arguments are not persuasive and the §102 & §103 rejections are repeated from the first Office action.

It is noted that claim 1 has been rewritten to incorporate claim 2, however this does not overcome the original §102 rejection of claims 1-2 over Ebara from the first Office action.

Claim Rejections - 35 USC § 102

8. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

9. Claims 1, 6 and 8 are rejected under 35 U.S.C. 102(b) as being anticipated by EP 0 982 098 A2 to Ebara Corporation.

Re claim 1, Ebara discloses a substrate cleaning system having a system body (housing) with booths (units) separated by partition walls (see, for instance, not numbered walls in Figures 1,6,7); the system body including a loading/unloading booth with a substrate carry-in section (loading unit 11) and a substrate carry-out section (unloading unit 12), a processing booth with substrate cleaning chamber (washing unit 15 or polish units 13 & 14), and a robot booth with transfer robot 10 (for instance, Figures 1, 6, 7 and col. 7, lines 16-35); the robot booth 10 sandwiched between loading/unloading booth 11/12 and processing/washing booth 15 (for instance, Figures 1, 6 and 7) and that the system may be sealed/covered by a housing as in a clean room (for instance, col. 11, lines 22-27). Although, Ebara does not expressly disclose the loading/unloading booth having closing openings, the position is taken that the loading/unloading booth of Ebara must inherently include closing openings in order to load/unload substrates to the sealed/covered system.

Re claim 6, Ebara further discloses the transfer robot 10 having (re claim 6) twin arms 10-1 & 10-2 (for instance, Figures 1, 6, 7 and col. 7, lines 16-35) and the robot movable vertically and horizontally (for instance, Figures 6-7).

Re claim 8, Ebara further discloses a substrate reversing unit 11-2 (for instance, col. 6, lines 28-33).

Claim Rejections - 35 USC § 103

10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

11. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

12. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

13. Claims 3-5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ebara, as applied above, in view of US 5,829,939 to Iwai et al.

Recitation of Ebara is repeated here from above. Although Ebara discloses a covered/sealed system and utilizing clean room condition, Ebara does not expressly disclose the loading/unloading booth having substrate holding sections and an elevation positioning unit.

Iwai et al. teaches that it is known to utilize loading and unloading booths 30 (for instance, Figure 4) each with substrate holding table 38 and elevation (vertical) positioning means 41 in order to load and unload wafers in a wafer processing system while maintaining an inert atmosphere (see, for instance, Figures 1 & 4; col. 9, lines 6-13; col. 35, lines 35-50). Therefore, the position is taken that a person of ordinary skill in the art at the time the invention was made would have been motivated to modify the system, disclosed by Ebara, with the loading/unloading booth disclosed by Iwai et al. for the purpose of providing a sealed wafer treating system with improved cleanliness at the loading/unloading interface.

Allowable Subject Matter

14. Claims 11-14 are allowed.
15. Claim 9 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, second paragraph, set forth in this Office action, and if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

16. The following is a statement of reasons for the indication of allowable subject matter: The closest prior art of record do not disclose the claimed substrate cleaning system having a processing booth with corrosion resistance coating on the inner wall and vinyl chloride resin and oxidation resistance painting treatment on the outer wall, as in claim 9, substrate holding sections with soft landing type supporters, as in claim 13, or a vertically moving chamber body and multiple vertically aligned processing baths, as in claim 14 (and in claims 11-12 which depend from claim 14).

Conclusion

17. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

18. A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

19. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joseph L. Perrin, Ph.D. whose telephone number is

(571)272-1305. The examiner can normally be reached on M-F 7:00-4:30, except alternate Fridays.

20. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Randy P. Gulakowski can be reached on (571)272-1302. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

21. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703)308-0661.

Joseph L. Perrin, Ph.D.
Examiner
Art Unit 1746

jlp


FRANKIE L. STINSON
PRIMARY EXAMINER
GROUP 3460/72